

OPINION 571

DESIGNATION UNDER THE PLENARY POWERS OF LECTOTYPES
FOR THREE SPECIES OF GRAPTOLITES

RULING.—(1) The following action is hereby taken under the plenary powers :—

All lectotype selections hitherto made for the nominal taxa specified in Col. 1 below are hereby set aside, and the specimens specified in Col. 2 are hereby designated as their respective lectotypes.

Col. 1	Col. 2
(a) <i>Monograptus fimbriatus</i> var. <i>similis</i> Elles, G. L. & Wood, E. M. R., 1913	The specimen illustrated by Elles & Wood as text-fig. 339 now preserved in the Sedgewick Museum, Cambridge (Regd. No. A21479).
(b) <i>Monograptus triangulatus</i> var. <i>major</i> Elles & Wood, 1913.	The specimen illustrated by Elles & Wood as text-fig. 328b now preserved in the collection of the Geological Survey and Museum, London (Regd. No. 26326).
(c) <i>Monograptus communis</i> var. <i>rostratus</i> Elles & Wood, 1913.	The specimen illustrated by Elles & Wood as fig. 2b on pl. xlix (which is also the specimen shown in text-fig. 337) now preserved in the collection of the Geological Survey of Great Britain (Edinburgh Office) (Regd. No. 2360).

(2) The under-mentioned specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified below :—

- (a) *similis* Elles, G. L. & Wood, E. M. R., 1913, as published in the combination *Monograptus fimbriatus* var. *similis* and as interpreted by the lectotype designated under the plenary powers in (1)(a) above (Name No. 1673) ;
- (b) *triangulatus* Harkness, R., 1851, as published in the binomen *Rastrites triangulatus* (Name No. 1674) ;
- (c) *major* Elles, G. L. & Wood, E. M. R., 1913, as published in the combination *Monograptus triangulatus* var. *major* and as interpreted by the lectotype designated under the plenary powers in (1)(b) above (Name No. 1675) ;
- (d) *communis* Lapworth, C., 1876, as published in the combination *Monograptus convolutus* var. *communis* (Name No. 1676) ;
- (e) *rostratus* Elles, G. L. & Wood, E. M. R., 1913, as published in the combination *Monograptus communis* var. *rostratus* and as interpreted by the lectotype designated under the plenary powers in (1)(c) above (Name No. 1677).

HISTORY OF THE CASE (Z.N.(S.) 1248)

On 2 August 1957, Professor O. M. B. Bulman (Department of Geology, Cambridge University, England) sent a preliminary enquiry to the Office of the Commission on the possible use of the plenary powers to set aside, in the interests of stability of nomenclature, injudicious lectotype-selections for three species of graptolites. Professor Bulman's definitive application was sent to the printer on 11 September 1957 and was published on 30th December 1957 in *Bull. zool. Nomencl.* 13(10/11) : 313-317.

Public Notice of the possible use by the Commission of its plenary powers in this case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* 4 : 51-56) and to three palaeontological serials.

The following comments were received :—

(a) *Dr. C. J. Stubblefield (Geological Survey and Museum, London).—*“ I support Professor O. M. B. Bulman's application for the revised designation of lectotypes of the Silurian graptolites, *Monograptus fimbriatus similis*, *M. triangulatus major* and *M. convolutus communis* in accordance with the intention of the original authors of these species, the Misses Gertrude L. Elles and E. M. R. Wood, and with long usage, since I believe such lectotype designations to be in the interests of stability of nomenclature.”

(b) *Dr. Alois Pribyl (Ceskoslovenská Akademie věd Horníků Ústav, Prague, Czechoslovakia).—*“ I request the International Commission on Zoological Nomenclature to judge, before taking a decision, my comments as follows :

“ (i) In paragraph ‘Case No. 1’ Dr. O. M. B. Bulman states that the selection of lectotype from the syntypes figured by G. Elles and E. Wood (1913) on pl. 48, figs. 5a-d and text-fig. 339 was not correct when I, with A. Munch, in 1941 selected as the lectotype of this subspecies (*Demirastrites fimbriatus similis*) the specimen figured by Elles and Wood as fig. 5a (on pl. 48). Dr. Bulman asserts that the examined specimen (lectotype fig. 5a) ‘is inaccurate and misleading, since the proximal end of this specimen does not in fact show the sicula, and it can only be identified as *similis* with reserve’.

“ With Dr. O. Bulman's view and proposal can neither I nor A. Munch agree because the specimen figured on fig. 5a (pl. 48) has a well developed sicular part and constitutes (according to the figure) the best representative of this subspecies that was then figured by both authors (1913). From that clearly follows that the figures in the Monograph of Elles and Wood are either correctly designed and pictured (for I do not know why both authors should have completed the design according to their imagination) or they completed the pictures, in fact, from imagination, and then that Monograph does not constitute an accurate scientific work on which a revising author could rely. Considering that the selection of lectotypes was carried out during World War II (1941), both revising authors (A. Pribyl and A. Munch) could not study directly the figured types.

“ Nevertheless it is, however, not necessary to replace the selected type (lectotype) by a different selection, as suggested by Dr. O. M. B. Bulman (1957 : 314), because the selected specimen possesses the typical features of subspecies *similis*, i.e. a larger number of thecae on 10 mm. and other charac-

teristics. I recommend the International Commission on Zoological Nomenclature not to approve Dr. Bulman's suggestion as it is against the rules of the zoological nomenclature.

"(ii) To 'Case No. 2'. Also in this case Dr. Bulman suggests that the lectotype selected by us (A. Pribyl and A. Munch) of subspecies *Demirastrites triangulatus major* (Elles and Wood, 1913) should again be replaced by the selection of a different specimen (text-fig. 328b). Dr. Bulman asserts that the type selected by us (specimen figured by Elles and Wood, pl. 47, fig. 5a) is not typically representative of this subspecies (*major*), but belongs according to him to the subspecies *triangulatus triangulatus* Harkness.

"Before the Commission takes a decision in this case, I request you to enable me to examine personally the lectotype selected by us (fig. 5a) by your kindly asking Dr. O. Bulman to lend this type for redetermination, eventually to lend me a photocopy of this type. Then perhaps (in case Dr. Bulman be right) there could be carried out a change in the new selection of lectotype. As far as I know it is the duty of every revising author, if he ascertains any mistakes of the previous author, to inform the latter thereof (if he still lives) and to ask him to correct the ascertained errors.

"(iii) To 'Case No. 3'. In this case Dr. O. Bulman suggests something that is directly against all rules of zoological nomenclature by asking the Commission to approve a new lectotype (fig. 2b) instead of the lectotype chosen earlier by myself in 1946 (fig. 2a). His comment that this selection might lead to mistaking the new species for specimens known under the name of *rostratus* (*communis rostratus*) Elles and Wood, 1913, is quite absurd. Considering that the lectotype was selected as early as in the year 1946, it is necessary (to avoid confusion in the zoological nomenclature) to maintain the validity of this selection, and specimens belonging to the determined type will be named *rostratus* Elles and Wood, as both authors (G. Elles and E. Wood) considered the selected specimen as a 'typical specimen' and therefore as a representative of their new subspecies (*communis rostratus*). Whether some of the specimens figured by G. Elles and E. Wood (1913) may be considered as a new different species (as supposed by Dr. Bulman) is a matter of opinion and progress of science and its development, and such a new species may be selected out of the original syntypes, excepting of course the lectotype. The denomination of '*rostratus*' may carry only that group of specimens which is grouped around the selected lectotype and different forms may be renamed or eventually transferred to another already known or new species, out of which the holotype (of the new species) may be then selected.

"I hope that the International Commission on Zoological Nomenclature will consider all my comments and take such a point of view as will confirm and strengthen the priority and nomenclature of our Zoological and Paleontological Science. Already Dr. Bulman's suggestion, first of all in 'Case No. 3', is such a typical example of causing confusion in nomenclature."

(c) Dr. H. W. Ball (*British Museum (Natural History) London*).—"I wish to express my support for the proposal made by Professor Bulman regarding the designation of lectotypes for three taxa of Triangulate Monograptids. This proposal is based upon the results of a re-investigation of the type material

itself and is, in my opinion, the most practicable method of preventing considerable confusion in the taxa concerned."

(d) *Dr. Isles Strachan (University of Illinois, Department of Geology, Urbana, Illinois, U.S.A.)*.—"I wish to give my full support to the application before the Commission concerning the lectotypes of three graptolite taxa. It is unfortunate that no types were designated in the 'Monograph of British Graptolites' for the new species described in that work but the authors clearly distinguished on several occasions between 'type specimen' and 'typical specimen' so that the latter expression cannot be regarded as an unequivocal designation of a type. I feel also that designation of lectotypes of the British taxa should involve re-examination of the original material and should not be merely a passing reference without further illustration or discussion as is the case with these three taxa."

(e) *Professor Leif Störmer (University of Oslo, Institute of Geology, Oslo, Norway)*.—"Since the lectotypes chosen by Dr. Pribyl do not correspond to the original description of the varieties, it seems justifiable to establish new ones among the originally figured specimens."

(f) *Professor O. M. B. Bulman (University of Cambridge, Sedgwick Museum, Cambridge)*.—"I am surprised to learn that Dr. Pribyl is opposing the application which I made recently regarding the lectotypes of certain monograptids (*Bull. zool. Nomencl.* 13 : 313-317), for I cannot see what possible objection there can be to the selection of lectotypes which show the characters of the species they are intended to define, and which maintain the current usage of the names *similis*, *major* and *rostratus*. I am sorry if Dr. Pribyl considers any part of it to be lacking in courtesy; no discourtesy was intended, any more than by himself, I imagine, in selecting lectotypes without consulting Dr. G. L. Elles (surviving author of the names concerned).

"The Commissioners will, I am sure, realise that the whole purpose of Dr. Margaret Sudbury's revision of this group of monograptid species has been to bring up to date the rather inadequate 45-year old descriptions and figures in the *Monograph of British Graptolites*. Anyone who has attempted to determine material of these triangulate monograptids will realise that such revision was necessary. To do this involves careful preparation and description of complete and well-preserved pyritised specimens in full relief, and the evaluation and interpretation of compressed examples (as many of those figured by earlier authors). This naturally may lead to some emendation as well as considerable amplification of the short original descriptions, and it can only be done by someone who has access to all the original material.

"*Case no. 1.* Having examined all the specimens concerned (which Dr. Pribyl was unable to do) I can only re-affirm that the specimen he selected as lectotype (Elles & Wood, pl. 48, fig. 5a) does not provide any definitive indication of the sicula. It is therefore impossible to determine whether the first theca shown on the rhabdosome is really th1 or th2. The characters of th1, which are diagnostic of the variety *similis* (according to Elles & Wood, and Dr. Sudbury's revision) cannot therefore be precisely determined on this specimen. The number of thecae per centimetre is not in itself a reliable feature (being readily affected by preservation, and not easy to determine on

a curved rhabdosome), and Dr. Pribyl does not state what 'other characteristics' he claims render any alternative selection unnecessary. There is no such uncertainty concerning the specimen represented in text-fig. 339, the interpretation of which is not open to doubt.

"That fig. 5a should be inaccurate in the representation of the sicula is perhaps due to the quality of optical equipment available nearly fifty years ago. I would repudiate any suggestion that the figure was deliberately misleading, and I would hardly expect any experienced palaeontologist to suggest that inaccuracy in this particular detail in one figure detracts appreciably from the value of the Monograph, or reflects on the ability of the authors.

"Case no. 2. This again seems to me a straightforward case. The variety *major* was erected for forms in which 'the thecae [are] much longer than in the typical form, approximately seven-eighths of the total length being isolate'. Now the thecae of the specimen illustrated (Elles & Wood, pl. 47, fig. 5a) are in the early part of the rhabdosome triangular and well spaced, and the later ones are even broader. They are, in fact, not more than 2.0 mm. in height, compared with 1.9 mm. in *triangulatus* and 2.25 to 3.0 mm. in var. *major*. This is why we suggest that the specimen selected by Dr. Pribyl is not typical, but on the contrary is very nearly true *triangulatus*; in the lectotype we propose (text-fig. 328b), the thecal height is 2.2 mm. I am unable to offer any explanation as to why the other was ever figured by Elles & Wood as *major*.

"Case no. 3. I cannot see what has so incensed Dr. Pribyl about this proposal, or why it is contrary to all rules. The specimen selected by him as lectotype (Elles & Wood, pl. 49, fig. 2a) is, in its detailed thecal characters, quite distinct from the others figured and from what has been taken to represent *rostratus*. The difference lies in the apertural parts of the metathecae, which are slender and more like those of Tornquist's *M. nobilis* than the broad apertural 'hooks' of the *M. communis* group. No great weight need be attached to Elles & Wood's comment 'typical specimen' (in reference to fig. 2a), since the specimen we propose (fig. 2b) as lectotype is not only a 'typical specimen', but is also 'well preserved'.

"Here again I think the disparity in thecal form passed unnoticed by the authors of the Monograph, who were perhaps not drawing their species and varieties so precisely and were using optical equipment which would be judged inefficient by modern standards. What we suggest can cause no confusion whatever, but if the Commission decides that Dr. Pribyl's selection must stand, then a new name will have to be found for what is currently accepted as *rostratus*, and to my mind this does introduce confusion."

DECISION OF THE COMMISSION

On 7 July 1958 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (58)15 either for or against the proposals set out in points (1) and (2) on *Bull. zool. Nomencl.* 13 : 315-317, paragraph 8.

At the close of the Voting Period on 7 October 1958 the state of the voting was as follows :—

(a) Affirmative Votes—twenty (20), received in the following order : Holthuis, Boschma, Bodenheimer, Hemming, Vokes, Riley, Hankó, Hering,

Mayr, Lemche, Mertens, Jaczewski, Brinck, Dymond, do Amaral, Stoll, Cabrera, Kühnelt, Tortonese, Bonnet ;

(b) Negative Votes—one (1) : Prantl ;

(c) On leave of absence—three (3) : Bradley, Key, Miller ;

(d) Votes not returned—none.

ORIGINAL REFERENCES

The following are the original reference for the specific names placed on Official Lists by the Ruling given in the present Opinion :—

similis, *Monograptus*, Elles, G. L. & Wood, E. M. R., 1913, *Mon. Brit. Grapt.*, Palaeont. Soc. (9) : 483, pl. xlviii, figs. 5a-d, text-fig. 339

triangulatus, *Rastrites*, Harkness, R., 1851, *Quart. J. geol. Soc. Lond.* 7 : 59, pl. 1, figs. 3a-d

major, *Monograptus triangulatus*, Elles, G. L. & Wood, E. M. R., 1913, *Mon. Brit. Grapt.*, Palaeont. Soc. (9) : 472, pl. xlvii, figs. 5a-d, text-figs. 328 a, b.

communis, *Monograptus convolutus*, Lapworth, C., 1876, *Geol. Mag.* 13 : 358, pl. xiii, figs. 4 a, 4b.

rostratus, *Monograptus communis*, Elles, G. L. & Wood E. M. R., 1913, *Mon. Brit. Grapt.*, Palaeont. Soc. (9) : 481, pl. xlix, figs. 2a-c, text-fig. 337

CERTIFICATE

WE certify that the votes cast on Voting Paper (58) 15 were cast as set out above, that the proposal set out in the Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion 571.

N. D. RILEY

Secretary

RICHARD V. MELVILLE

Assistant Secretary

International Commission on Zoological Nomenclature

London

1 May 1959